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COLMAN'S RURAL WORLD.

ROBERT J. COLMAN,
LEVI CHURCH, EDITORS.

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To double the circulation of the RURAL WORLD annually is an ambition of the Publishers. It requires new subscribers to do this, and in order to secure them, every present subscriber is constituted an agent to assist in that effort. The price of the RURAL WORLD is one dollar per year, which is cheap, considering the quantity and quality of the matter and paper used, but to accomplish our purpose we will allow every subscriber to send a new name with his own for one dollar, and he may add additional NEW names at fifty cents each, which is less than the actual cost of the paper. Renewals in no case will be received for less than one dollar unless accompanied by the name of a new subscriber.

SPECIAL PREPARATION.

Judge Neville of the twenty-third judicial circuit of Missouri was in St. Louis recently studying law. He is now filling his second term as circuit judge, and for a number of years has been a practicing attorney. Yet he comes to St. Louis during the time when his court is not in session to study law. Is there a lesson in this for farmers? A few weeks spent at the State Agricultural College in pursuing a special course of study would be a profitable investment for many young farmers. A postal card addressed to the Dean of the Agricultural College, Columbia, Mo., will bring to any Missouri farmer full information along this line.

WHO ARE BENEFITED?

In the very thoughtful article on "A Study in Market Reports" which appears on this page, the writer, Mr. H. A. Bertram, reaches a conclusion with reference to the comparative prices of butter identical with that reached incidentally by our valued Kansas contributor, M. E. King, in his article on page two of this issue in answering the question "Will it pay?" namely, that the fraudulent substitution and sale of oleomargarine for butter has so decreased the consumption of and demand for butter that, notwithstanding the considerable increase in price of feed and consequent increased cost of production, the price of butter is now lower than it was one year ago. This is a fact worthy of the most careful consideration by not only the farming population of our country, but the consumers of butter and oleo as well. While the price of butter, at least of the higher grades, is lower than it was a year ago, the price of oleo has not fallen, but, if anything, has advanced. The manufacturers of oleo, being few in number, can much more readily control the price of their output than can the almost countless number of butter-makers control the price of their product; and regardless of the pretended solicitude of the oleo makers for the "poor people," they will make their business yield just as much profit as possible. While the consumers of high-grade butter are paying less for what they consume than a year ago, this is the class that is the best able and the most willing to pay a legitimate advance in price. It is the class that does not want to be bounced into eating an imitation article. Thus it appears that the trend of the market is in favor of the makers and sellers of a fraudulent compound and of people who are not in sympathy with those people and their product. The so-denominated "poor man" and the dairy farmer are not benefited.

SAVING WINTER MANURE.

There has been much written and said regarding the value of manure; yet when one notes how much of it is cared for on the farms of the land, one must conclude that its full value is not rightly understood. There is much disagreement among farmers as to the proper way of caring for manure to get the best results when using it. The plan commonly practiced by many farmers all over the country of tossing it out into a heap by the side of the barn, to be leached and washed by the rains, is the most wasteful system.

Stables should be planned as to have provisions for saving the liquids, as they contain at least one-half of the manurial value. If water tight gutters are not provided, plenty of dry absorbents should be used, and nothing is much better than road dust. Dry leaves or litter that is free of weed seed will add to the fertilizing value of stable manure.

Many farmers who are getting good results from use of stable manure advise hauling out and spreading these soaked materials as soon as a good load has accumulated. They contend that the leaching will be right where it is required, and that there will be little or no waste.

Farmers need to give this subject study and investigation. They need to realize that the manure on the farm must not

be wasted.

In dairy sections, where feeding is intelligently done, not only is the nutritive value of a food estimated, but its manurial value also. But where such close calculations are made no manure is wasted. It is not difficult to estimate the value of a crib of corn, but how many farmers estimate the real manure value there is in the manure pile? If they did, would it not be handled so that the labor expended in hauling and spreading it would pay, pay profitably?

If a farmer thinks there is a good deal of talk in this manner, saving subject, just test it. Test it conscientiously and intelligently. Select a plot of ground and fertilize it with manure in which has been retained the liquids, and which has not been permitted to leach and waste, and then determine if it pays to have the stock wade in a barn lot which is manure soaked.

THE FEEDING VALUE OF WHEAT

Frequent inquiries are being made this season as to the feeding value of wheat. This same query has been made in prior years, when the price of corn ruled higher than that of wheat. Tests of the feeding value of wheat as compared with corn have been made at many of the State Experiment Stations. Some have made the tests to ascertain the value of wheat as a food for pigs, others as a food for steers; others as a food for dairy cattle, and others as a food for horses.

The results have been recapitulated in a Press Bulletin No. 14, by Minnesota Agricultural Experiment Station. The summary of these tests, as prepared by the chemist, Prof. Harry Snyder, is as follows:

Editor RURAL WORLD: Just lately we had the ragged fringe of two blizzards, and are thankful "we are not as other men," further north, where the "lows" surge over the country. A little more rain last night makes the springing wheat and rye safely moist for a week or so, but we do so long for a genuine old-fashioned spell of weather which would permit everyone to drink water from his own cistern. Hauling water a mile or so is all well enough for a month or so, but taking it all around, we greatly prefer the graving troughs direct method when the leading troughs are in good order. Many have been hauling water for six months already, and some local prognosticators are wearing our nerves out by giving us a dry winter and other awful things.

In the midst of distress light appears away off on the horizon; there is a brand-new gum at the spring from which two barrels of water may be dipped without pause. This is much pleasanter than having four or five resupplies to each barrel, as was the case with the old gum. While having no inherent dislike of a resupplies now and then, I do object to 'em while hauling water.

The drouth should teach us all our utter helplessness when depending upon our own exertions without any regard to the Giver of all.

We can see new beauties in the passage comparing spiritual blessings with water, the most necessary thing in the temporal world. May we all finally reach the "fountain of living water," where we shall know neither hunger nor thirst.

About the same acreage of wheat was sown, hereabouts, as last year and the corn ground was in the best possible condition for sowing. It needed only moisture to give the young plants a good start. This the earlier sowing failed to receive until lately, but now we are more hopeful. However "there's many a slip 'twix the cup and the lip," or more literally, there are several "bugs" and "flies" to each wheat plant.

It seems as though it were rather safer to sow not earlier than about the first to tenth of November, though the rule has been to sow from about the middle of September till the middle of October.

Perhaps a little stiffer legislation for the protection of some of our birds would be salutary. Science has done us much good by hunting up antidotes to many of our pests of garden, field and orchard, and we will sow a little later and watch the bulletins.

There was more smut on the corn this year than I ever saw before. In cutting the fodder we carefully knocked off most of the smut, but, of course, could not get all off. Would that remaining in the stalks have any deleterious effect on horses or cattle?

We were rejoiced to make the acquaintance of our junior editor in the issue of Nov. 6. His earnest, thoughtful face gave us some idea of how he makes the paper so helpful and interesting. The faces of other members of the large family as they appear from time to time give us an individual interest in their affairs which would be lacking otherwise.

The first week of November I sowed some sand-witch seed with rye, as an experiment, as we are told the fall-sown would produce seed the next year. We only put half of the available seed under the ground; the rest will go under in the spring.

It may be a hackneyed subject, but here it comes: That Bermuda (Big B) sod will carry a coach-and-four now, and it makes the neatest, velvety carpet for gentle walking exercise. I think with gratitude of Mr. Jones of Tennessee and the beauty of the grass will not allow my remembrance of him to dim with time.

Next spring it will be segregated on the hill side when I will watch it aggregate with joy. Moral, go thou and do likewise. Another cause for rejoicing is the abundance of mast which makes the hogs so round and frolicsome.

Why not drop a card to the Secretary of Agriculture asking him to drop "Farm-

er's Bulletin No. 137, The Angora Goat," into his mail box with your address on the envelope?

You'll not regret it if you possess any such land that ought to be cleared out. Oregon Co., Mo. RALPH T. HOYT.

NOTES FROM AN OHIO FARM.

Editor RURAL WORLD: Although this letter is intended as a trend of review of seven weeks of institute work in your state, allow me to send it in under the above familiar heading.

To say that I was pleased with the intense interest taken in the institute work in Oregon is to put it mildly; as at nearly every meeting point we could have held two more days than we did, with unabated interest.

The question will be asked, "In what especial point did the people seem to take the greatest interest, and what provoked the greatest discussion?" and in answer I毫不犹豫 say, in improving the fertility of the soil and in the cow peas as a forage crop and as a fertilizer.

As a close second in point of interest were the talks of the veterinary surgeons of our corps of speakers, and in some places these gentlemen could have held the attention of the people during a two-days meeting. It is evident that the farmers of Missouri are wide-awake and anxious to secure any information that will enable them to grow better crops and to feed their animals to the best possible advantage.

THE SOIL of all these sections was once split out from earth's bowels through volcanoes. There is probably not a foot of soil in Oregon that has not been made by the weathering of lava or by the accumulating sediment of volcanic dust. Around Umatilla, in N. E. Oregon, are large areas of upland or mountain plains, the soil of which is composed entirely of volcanic dust. Although this is an arid section, yet it is the finest wheat land of the state, and 80 to 70 bushels per acre is not an unusual yield.

The soils of the Willamette Valley being formed by the weathering of basaltic lava are naturally heavy clay soils, rich in aluminum, potassium, sodium and iron, but very deficient in calcium or lime. I tested the waters of Silver Creek, a mountain stream flowing from the Cascades, and failed to find a trace of lime.

No limestone formations of any description have I yet seen in this valley.

The only sedimentary stone that I have found is a pudding stone formed of volcanic boulders, clay and a little sand, which formation seems to underlie the entire valley. These soils, probably because of their deficiency in lime, are very inferior for grass. I have not seen a good blue grass pasture or timothy meadow in the state. Clover, especially white, does somewhat better, but is liable to be smothered out by wild grasses and ferns. These soils, however, are the most superior for small grain and fruit of any I have ever seen. Yields of 50 bushels of wheat and 80 of oats have been realized during the past season. The success of these crops is probably due more to climate than soil conditions.

The upland soils here being deficient in silica and rich in kaolin, consequently erode and leach very slowly. One seldom sees, even in the upland fields, a ditch or gutter of any consequence, and it is a common thing to find a field that has been constantly in wheat for forty years, still producing good yields.

AS A FRUIT COUNTRY we have never seen any that would begin to compete with Oregon. In fact, about all there seems to be in the art of horticulture here is to plant a tree and in a few years go and harvest the crop. I have seen better fruit produced here this season without culture than I ever saw produced in the East by the most scientific methods. All kinds of berries grow here in perfection. Only two weeks ago we gathered our last blackberries, and there are strawberries ripe now in the garden. The finest sweet cherries in innumerable varieties grow here. Pears, plums and prunes grow to perfection without a fungous disease or insect enemy to molest them. There seems to be an occasional case of "fire blight" in the pear orchards, but it shows no disposition to spread.

Insects of all kinds seem rare here, and I have not found a single trace of the curculio which is such a terror to our fruit growers in Missouri.

Apples grown here are fine in appearance and fair in quality, but do not seem to be good keepers. Peaches are not successful near the mountains, but do better near the rivers.

AS TO GRASS AND STOCK.—People of Oregon claim the state to be a grass and stock country, but to one coming here from the Mississippi Valley it does not appear so. The farmer has a constant fight against noxious weeds, wild, worthless grasses and ferns. The ferns will, but for constant vigilance on the part of the farmer, take every field, and they grow to a height of ten feet.

THE DAIRY BUSINESS.—Along the coast some farmers are making money out of the dairy business. Others in the valley are now taking it up, with the prospect of supplying the local market soon. As the distance to Eastern markets is so great, I am unable to see how the people of this coast can compete with the Mississippi Valley in supplying Eastern markets with butter.

CONSIDER WELL.—Let me say that nothing I have written in this letter should be taken by my friends in the East to mean that I think this country superior to that. Indeed, I have been constantly impressed since coming West with the immense superiority of the Mississippi Valley as a farming section, and as the home of the farmer. Land here is higher than in the middle states.

"WHERE ROLLS THE OREGON."

Editor RURAL WORLD:

"Of all the climate east or west; I think Oregon climate the best."

The generous poet who wrote the above couplet probably spent only one summer in Oregon and got safely out of the state before the damp, drizzling, dismal winter wrapped the land in perpetual mist. To escape the torrid heat which the Mississippi Valley has passed through during the past six months is indeed good fortune. To sleep soundly beneath two heavy blankets throughout the warmest nights of the past summer was a pleasure not yet forgotten; but now, November 20, the fog rises continually from the ocean, the clouds hang heavy and low over the Willamette Valley, the sun is seldom seen and we are homesick for the bright sunlight, the cool, cutting winds and the glorious landscape of Northern Missouri.

In the hope of being of some service to my friends of the RURAL WORLD, I shall endeavor to give them a brief account of my impressions of this section of the Pacific Coast, which embraces the Willamette Valley and also the coast range and Cascade Mountains.

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REYNOLDS CO., S. E. MO.—Owing to the continued dry weather, wheat has made a very poor growth. There is some complaint of a thin stand.

NOV. 22. JULIUS ALBRECHT. W. H. SHY.

COLE CO., CEN. MO.—We have had a hard, dry season and we are not yet over the difficulties. Feed will be scarce before spring. J. A. HUNTER.

Nov. 22. G. L. JOHNSON.

RANDOLPH CO., N. E. MO.—There has been no rain since fall wheat was sown and the condition is critical; however, with plenty of rain or snow it may be all right, as the plant still looks fair well.

Nov. 22. G. L. JOHNSON.

Volume LIV., No. 47.

A STUDY IN MARKET REPORTS

Editor RURAL WORLD: A profitable lesson can be learned by studying certain phases of the market reports as corrected and printed weekly in the RURAL WORLD. The quotations showing the changing values of farm and other products are always attractive, especially so to those directly interested in the purchase or sale of any of these products. It is said that the average woman on picking up the morning paper scans first the columns of funeral notices, but it is more likely that the average business man turns first to the page of market reports. Each man has his pet corner to which he eagerly turns to note the condition of some favorite stock or produce. The farmer who does not keep in touch with the prices of grain, live stock and dairy products, is not keeping up with the progress of the times, and the farmer who is not progressive will fall by the way-side.

On looking over the butter quotations a few days ago, I was impressed by a comparison of prices for corresponding dates during the last three years.

The Quotation Committee of the Elgin Board of Trade, for example, declared the market firm at 23 cents for Monday, Nov. 11, 1901, and the quotations for the corresponding date of the two previous years made by the same committee are as follows:

The Dairy

DAIRY CONVENTION DATES.

WISCONSIN DAIRYMEN'S ASSOCIATION, Menomonie, Feb. 12-16, 1901. G. W. Burchard, Secretary, Ft. Atkinson, Wis.

THE HONORS

At the Missouri Dairy Meeting.

An examination of the scores on butter and cheese exhibited at the Palmyra, Mo., Dairy meeting, as published in the RURAL WORLD of Nov. 20, shows that Northwest Missouri still holds the supremacy as the leading producing section of the state. The Blue Valley Creamery of St. Joseph, Mo., got not only the highest score in class, 96, but its entry was the highest scoring butter shown, thus enabling its maker, C. J. Walker, to walk away with the gold medal given for the highest scoring creamery butter and the challenge silver cup for having the highest score of all.

Northwest Missouri also won the highest honor on cheese, Frank Moulton of Cowgill, Caldwell county, getting a score of 96% on his exhibit of cheese and the gold medal. Caldwell county is the great cheese-making county of the state, and Mr. Moulton is the grand mogul of Missouri cheese makers.

Southwest Missouri won the highest dairy butter score, 96, and gold medal, by having a good rich man in the butter making business. Mr. Hall Goodrich of Calhoun, Henry Co., Mo., was the man who saved the day for his section of the state. He was closely pressed for the dairy butter honors by Mrs. Mary Gillespie of Palmyra, whose package scored only 1/4 of a point below his, and that difference lying in the way the butter was packed.

Northeast Missouri may well be proud of its champion, Mrs. Gillespie, who, though her head has been silvered by the winters of 70 or more years, came so near winning the honors in the Dairy class. Then note the fact that the four women of Marion county who exhibited butter at the meeting—Mrs. Gillespie, Miss Ella Lear, Mrs. Wm. Seymour and Mrs. Wm. H. Hatch—got scores of 95%, 96, 94 and 94, respectively. That speaks pretty well for Northeast Missouri and for the Missouri dairy women.

The ensilage prizes were won by James Curd of Palmyra, first, and John Patterson of Kirksville, Adair county, Mo., second, showing that Northeast Missouri dairymen are up to date on the dairy cow feed question, which is one of the greatest questions that the dairyman has to consider. That Northeast Missouri dairymen are alive to the importance of this question was again proven by J. L. Erwin of Steedman, Callaway county, and G. V. Saffarans of Palmyra, winning, respectively, first and second prizes on Cow Feeding papers.

For the Tivy & Elmer prizes for best set of answers to set of questions regarding butter flavors, Northeast Missouri won first honor, Mrs. Wm. H. Hatch being awarded the first prize, the second and third going to Southwest Missouri, W. S. Dille of Holden getting second and A. C. Helm of Corder getting the third.

And thus were the honors scattered, showing that Missouri has intelligent, progressive dairymen and women in all sections who will soon put a quietus to the question, "Why Not Missouri?"

THE MISSOURI DAIRY MEETING

At Palmyra, Mo., Nov. 7-9, 1901.

(Continued From Last Issue.)

Prof. C. H. Eckles, Professor of Dairy Husbandry in the Missouri Agricultural College, was the first speaker for the second session. His subject was "The Dairy Cow." We hope to print this address in full, including the charts of figures used to illustrate the points made. The leading thought was that cows were machines for converting farm crops into a more marketable product. Some of these machines were best adapted for converting the crops into beef, while others would convert them into milk to the better advantage.

Since publishing my book for the "Dairyman and Farmer," life again assumes the condition of being worth living. My only effort in answering most questions is to address an envelope and lick a stamp. I am not saying this in a complaining spirit, not at all. I am always willing to assist any one in whatever way possible, but it is quite impossible for a busy man to answer the number of letters I have been receiving, and look after a large farm and herd.

The past week I was in attendance at a Congressional Farmers' Institute, but owing to good crops, the farmers did not realize any necessity of more knowledge. The scoop-shovel rule of feeding was good enough for them; and 50 to 75 bushels of corn per acre on an off year did not call for much mind culture, therefore attendance was very light.

Warren Co., Ill. "BUFF JERSEY."

VERY COMPLIMENTARY.

W. W. Marple, secretary of the Blue Valley Creamery, at St. Joseph, wrote a letter to F. W. Lane last week from which we take the following extract:

"The writer wants to say personal reasons that in all of his experience he has never attended a meeting of any dairy association, either local or national, where so much interest seemed to be manifested, and where the crowd was so nicely handled and entertained as at your city. Great credit is due Palmyra and Marion county for the magnanimous way in which they secured and took care of this convention and much good, in my mind, will accrue to the good farmers in the state through the influence that is bound to be felt in different sections of the country in consequence of the harmonious and successful meeting held there this year."

Rheumatism

No disease makes a person feel older. It stiffens the joints, produces lameness, and makes every motion painful.

It is sometimes so bad as wholly to disable, and it should never be neglected.

Elsie B. Kirk, Box 247, Montezuma, Iowa, had it in her hips and limbs so that she could not sleep; Mrs. Hattie Turner, Bolivar, Mo., had it so severely she could not lift anything and could scarcely get up down stairs; W. H. Shepard, Sandy Hook, Conn., was laid up with it, was cold even in July, and could not dress himself.

According to testimonials voluntarily given, these sufferers were permanently relieved, as thousands have been by

Hood's Sarsaparilla
which corrects the acidity of the blood on which rheumatism depends and builds up the whole system.

Hood's PILLS cure constipation. Price 25c.

only what was needed for maintenance, converting the remainder into milk.

As a rule, a good cow will continue to be a good one year after year, while a cow that proves to be a poor one under good feeding and care will always be a poor one.

One can't judge a cow wholly by the amount of milk she will give, though that is the tendency in sections when whole milk is sold; when milk is sold by the test, the tendency is to let the butter fat test tell the whole story. Both factors must be considered. But it is harder to make good selections of cows than it is to show that selections should be made. He thought that the only sure way was to test each individual cow by the Babcock test. This is not a difficult thing to do, with sufficient accuracy to meet the dairyman's needs. A small tester costs but little and it is easy to learn to operate. Or one can take samples of milk to the creamery; any wide-awake manager of a creamery will be glad to aid his patrons to improve their herds by testing the milk.

If one going out to buy cows, he must use his judgment. A man who has been breeding beef cattle will be likely to make mistakes by having a wrong ideal in mind. There is such a thing as "dairy form," and any breed for many years for dairy purposes will gradually assume the form of the Jersey.

The Professor then gave a description of what constituted a good dairy cow so far as form went. She has an abnormal stomach and udder development, thin shoulders, wedge shape, slender head and neck, broad across the eyes, thin thighs, large milk veins and soft skin.

Question.—Why is there often so great a variation in the butter fat test of individual cows?

Ans.—We cannot tell exactly; we know some facts, but not enough to always explain these differences. Anything that disturbs a cow and excites her will affect the test, sometimes one way and sometimes the other.

Ques.—Will a change of food cause a variation in the test?

Ans.—No.

Mrs. Frank Moore, of Palmyra, was the next speaker. Her paper is presented in another column.

CEDAR HILL JERSEY FARM NOTES.

Editor RURAL WORLD: This question is always in order, but there are perhaps more farmers and dairymen asking this winter than ever before if it will pay to feed grain and concentrates such as bran, oil or cottonseed meal, etc., to cows at present prices. Or will the prices of dairy products advance enough to equalize the high price of feed?

A good many farmers have said to me that they could not afford, nor did they intend, to buy feed for their cows this winter.

There are circumstances when I think it would be unwise for farmers to buy feed; for instance, it will not pay to buy extra feed for the purpose of pushing average or ordinary cows that are to come fresh in the spring, to the extent of their capacity, and this will catch a large majority of all the cows. But when one has a good herd of cows and particularly with those that came fresh this fall and are now in good heart for winter's work, I feel quite sure it will pay to feed well. At least we expect to feed just as liberally this winter as we did last when feed was cheap.

Out of a herd of twenty-four head, fourteen of them were fresh in the fall, the remainder, with one exception, being heifers that dropped their calves in May last; and, of course, these heifers must be well fed or they will not come up to expectations later on.

I am not sure that these heifers will any more than pay their way this winter, but I am sure that I cannot afford to do otherwise than feed them well, as I regard the first year's treatment of a cow largely the first making or unmaking of a dairy cow.

I may be somewhat cranky as to treatment of heifers with first calves, but it is my method and not chance that has brought us some mighty good cows. I believe in breeding heifers so they will come fresh at the age of eighteen or twenty months, dropping their calves in May or June if possible; then milking them for eighteen months, or at least not letting them come fresh for that length of time. This brings them with their second calves in the fall and we have them started as winter milkers. I sometimes think farmers make their greatest mistake in dairying along this line, and failing thereby to develop a paying herd of dairy cows. The development of a good herd of cows is a matter of slow growth; it takes not only time, but work and patience, and there come times, like the present, when sacrifices must be made, or future losses and perhaps failure will be the result.

The conclusion which we reach, then, is that fall fresh cows and heifers with their first calves, should be liberally fed even if prices of feed are high.

As to whether the prices of dairy products will advance enough to at least partially cover the cost of feed, I am not so sure.

If it were not for oleomargarine I think they would, but also is a slippery article and one can't tell what it will do for the dairyman. The fact remains that for some cause, regardless of all the drouth and high price of feed, Elgin quotations are one cent per pound lower now than they were one year ago, and what the prices will be in the future no one can tell.

M. E. KING.

Buckeye Dairy Farm, Labette Co., Kan.

THE DAIRY MAN.

A paper by Mrs. Frank Moore, read at the twelfth annual meeting of the Missouri Dairy Association.

In looking over the program of this convention, I find the three things essential, in order to carry on the dairy business, are the farm, the cow, and the man.

Now we have just listened to the gentleman who has so well presented to us the subject of the dairy cow, and we are all assured that he knows just what he is talking about and I feel just as sure that those who shall tell us about the old-fashioned dairyman and the up-to-date dairyman will completely consume and use up their subjects. And I congratulate myself on being so lucky as to get the raw dairyman to work on—for if I were to follow them there wouldn't be fragments enough of the dairyman left for me to make hash, even if I were to mix in a little or something else—not onions, for onions and the dairy business are at variance, one with the other.

Now I do not doubt the wisdom of your committee, who have thus chosen gentlemen of such knowledge and experience but I wondered, when I first saw this program why my name was there with the subject of The Dairy Man. But I have figured out the motive of your committee this way: By the dairyman we also mean the dairywoman. God made man—male, and female. He then. So the word man means woman as well and I tell you the word dairyman has more the meaning of woman than any form of the word man. I know you need not go to the dictionary or to your Latin or Greek to find this out—but just visit the farm houses in Missouri for a while and you will agree with me that the dairywoman sure enough includes his better half, the dairywoman, and I suspect some of you will almost conclude like El Perkins did about the man that had religion. "Yes, he had religion, but he had it in his wife's name."

Now you understand without any further argument, that the dairywoman is the



DAIRY FARM SCENE ON SOUTHERN RAILWAY.

WILL IT PAY?

Editor RURAL WORLD: This question is always in order, but there are perhaps more farmers and dairymen asking this winter than ever before if it will pay to feed grain and concentrates such as bran, oil or cottonseed meal, etc., to cows at present prices. Or will the prices of dairy products advance enough to equalize the high price of feed?

A good many farmers have said to me that they could not afford, nor did they intend, to buy feed for their cows this winter.

There are circumstances when I think it would be unwise for farmers to buy feed; for instance, it will not pay to buy extra feed for the purpose of pushing average or ordinary cows that are to come fresh in the spring, to the extent of their capacity, and this will catch a large majority of all the cows. But when one has a good herd of cows and particularly with those that came fresh this fall and are now in good heart for winter's work, I feel quite sure it will pay to feed well. At least we expect to feed just as liberally this winter as we did last when feed was cheap.

Out of a herd of twenty-four head, fourteen of them were fresh in the fall, the remainder, with one exception, being heifers that dropped their calves in May last; and, of course, these heifers must be well fed or they will not come up to expectations later on.

I am not sure that these heifers will any more than pay their way this winter, but I am sure that I cannot afford to do otherwise than feed them well, as I regard the first year's treatment of a cow largely the first making or unmaking of a dairy cow.

I may be somewhat cranky as to treatment of heifers with first calves, but it is my method and not chance that has brought us some mighty good cows. I believe in breeding heifers so they will come fresh at the age of eighteen or twenty months, dropping their calves in May or June if possible; then milking them for eighteen months, or at least not letting them come fresh for that length of time. This brings them with their second calves in the fall and we have them started as winter milkers. I sometimes think farmers make their greatest mistake in dairying along this line, and failing thereby to develop a paying herd of dairy cows. The development of a good herd of cows is a matter of slow growth; it takes not only time, but work and patience, and there come times, like the present, when sacrifices must be made, or future losses and perhaps failure will be the result.

The conclusion which we reach, then, is that fall fresh cows and heifers with their first calves, should be liberally fed even if prices of feed are high.

As to whether the prices of dairy products will advance enough to at least partially cover the cost of feed, I am not so sure.

If it were not for oleomargarine I think they would, but also is a slippery article and one can't tell what it will do for the dairyman. The fact remains that for some cause, regardless of all the drouth and high price of feed, Elgin quotations are one cent per pound lower now than they were one year ago, and what the prices will be in the future no one can tell.

M. E. KING.

Buckeye Dairy Farm, Labette Co., Kan.

THE DAIRY MAN.

A paper by Mrs. Frank Moore, read at the twelfth annual meeting of the Missouri Dairy Association.

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HISTORY OF GROUT BILL.

Introduced in House by Hon. W. W. Grout of Vermont, Dec. 16, 1899, and referred to Agricultural Committee.

Favorably reported by Agricultural Committee May 7, 1900, one week before summer recess, and December 6, three days after assembling of winter session, fixed for consideration by the Committee on Rules.

Passed House December 7, 1900, by overwhelming vote of 196 to 92, a clear majority of 104, or twelve more than two-thirds.

Immediately sent to senate, where friends asked to have it referred to Committee on Agriculture, the Finance Committee to which its consideration belonged under strict interpretation of rules, being known to be unfriendly. Motion fought by enemies of measure, who feared, however, to bring question to vote, hence was referred by unanimous consent to committee designated by its friends.

Senate committee heard evidence for four weeks, and reported bill favorably, proceedings of committee making book of 922 pages.

In Senate, the measure, by vote was placed in first position, displacing Senator Hanna's famous ship subsidy bill as unfinished business, in which position only privileged and urgent appropriation bills and conference reports had precedence in consideration.

Failure of the Senate to act upon the bill was due wholly to the fact of the measure's delay in the House Committee on Agriculture. And delay in the House Committee on Agriculture was due to the betrayal of the farmer's interests by Chairman James W. Wadsworth, who placed the measure in the hands of the special representative of oleomargarine interests, Congressman Lorimer of Chicago, who represented the great stockyard's district of that city, whose chief political backers are the leading oleomargarine makers of the United States. Despite the fact that his sub-committee of the agricultural committee stood four to one against the Grout bill, and that Chairman Wadsworth in his effort to smother the bill, in his effort to smother the bill, sentiment in the House compelled a report, and the vote of the full committee was favorable.

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Horticulture

TRIBUTE TO JUDGE MILLER.

Editor RURAL WORLD: The death of my dear old friend has awakened so many reminiscences of both our lives, that I feel I must pay a small tribute to his memory. The labors of such men are seldom, if ever, fully appreciated; yet I feel that among the thousands of readers of the RURAL WORLD, there are few, if any, that do not sincerely mourn the demise of so kindly a spirit, of a life so devoted to horticulture as his has been.

He has passed away, full of years, and "his works do follow him." I am sure he will not easily be forgotten by them.

But to me, a dear and one of the oldest of my friends has departed; one with whom I was in literary communication even before the war, though I never met him until the great struggle was over, on my first visit to the East, when I met him at his homestead near Lebanon, Pa.

To say I was made "at home" would but faintly express the idea of close communion established between us then, and which has lasted throughout our lives.

He had just then brought out the Martha, a white grape, which outlives him, and which opened a new era in grape culture in the East. I was more than glad to assist him in the sale of this fine grape to Rev. J. Knose, at Pittsburg, Pa., and it is still one of the prominent grapes of the East.

In 1866 Judge Miller returned my visit, and the six weeks of his stay belong to the sweetest places in my memory. He became so enticed by the charms of Missouri, as a horticultural state, that he sold out his homestead near Lebanon and removed with his family to Missouri. His history, since that time, lies as an open book before us. Kindly in nature, almost to a fault, he survived all the reverses of the Bluffton Wine Company, whose first superintendent of vineyards he became. Perhaps too lenient to the tenants, yet above reproach; and he retired from it to his permanent home in the old block house, where he died.

During all this time we were closely associated in an almost brotherly bond, which extended even to California, when I immigrated here. His letters were always welcome from the old state of my early days. We exchanged greetings and scorns from here, which may not bear full fruition, but his memory will never die with me, as long as I am yet permitted to wear this mortal coil, as one of the best and most unselfish men I ever met, and the thousands of readers of the RURAL WORLD will remember him kindly as a true friend and unselfish horticulturist.

GEORGE HUSMANN.
Napa, Cal.

HORTICULTURAL TALK.

FITTING APPLES.—Those who have apples to keep until spring and have no cool cellar in which to store them, should pit them just as they would potatoes. Apples will keep better if rightly pitted than they will in the average cellar.

WORTHLESS BEAUTIES.—One of the most deceiving pears is the Lincoln Coreless. While very large, desirable shape and fine color, it is next to impossible to eat one in its natural state. While the core is not very pronounced, the pear is by no means coreless. Many specimens contain a good many seeds.

This pear may be described as nice to look at, but unfit to eat. Another gay deceiver is Seneca. This one, too, is large and beautiful, but when it comes to eating, one bite is more than enough.

VARIETIES LOCAL.—In looking over some fruit notes compiled by a man who has had a vast amount of experience in horticulture, I was surprised to note that what he recommended as the best varieties of strawberries, blackberries and raspberries, consisted of such varieties as I would not plant at all, either because they have failed entirely with me, or because other kinds have been found superior on my grounds.

This goes to prove that varieties may do well in one place and fail in other sections.

This, however, is true only of certain varieties; there being others that succeed admirably over a wide territory.

A BAD COMBINATION.—It is not wise to plant peach trees as fillers in an apple orchard, even though the intention is to remove them when interference begins; the main objection being that they are usually left too long. Each class of fruit trees should be planted separately.

PRUNING RASPBERRIES, ETC.—Don't be afraid of pruning one year old raspberries too closely. Better cut them back considerably even at the sacrifice of berries. Save the vitality of the plant and get a good foundation for the future.

THE KIEFFER PEAR.—Those who regard the Kieffer as a bank in which to deposit their money, should be cautioned that this bank might fail. The future of this pear is uncertain, owing to the immense quantity being planted. There are many Kieffer trees to-day occupying valuable ground, the best treatment for which would be grub them out.

This refers, however, to trees that have been neglected in the past, and therefore have produced their last paying crop.

Fruit from such trees will be of no value when the market is full of fruit from the young orchard now coming into bearing.

PARSLEY FOR ONION ODOR.—Many people are so foolish that they will dispense with one of the most healthful vegetables just because it leaves an unpleasant odor to the breath after eating.

Others avoid eating them when they expect to call or receive company. To these I would suggest that they take a little parsley into the mouth and chew just after eating onions, as there will then be no offensive odor.

TURMIPS.—Yellow Aberdeen is to my taste the richest and best in quality. Kashmry is a new variety, very beautiful in appearance, being blood red all over. It is of good size, very smooth and matures very quickly.

North Alton, Ill. EDWIN H. RIEHL.

ANOTHER BACHMAN SEEDLING.

Editor RURAL WORLD: By to-day's express I send you a sample bunch of grapes which I cut this morning from a seedling vine that is in its third year of existence, and which bore this year 20 perfectly bunches like the one sent you.

This vine is from Lindley grape seed fertilized with Uncle Sam pollen. The vine seems very vigorous, healthy and productive, but is too young to enable us to say much about its future, and even if it proves valuable, there will be no vine

or cuttings for sale for several years to come; but I would like to know your opinion of the quality of the grape.

JOSEPH BACHMAN.
Arkansas, Nov. 4, 1901.

The bunch of grapes was duly received and as late as November 15 we had some of it still in an edible condition. The bunch was remarkably compact. The berries were medium in size, of a dark red, handsome color; flesh rather too firm and solid for a table grape, though not tough; flavor very pleasant.

SOCIETY MEETING

At St. Joseph, Mo., December 3-5, 1901.

The program of the forty-fourth annual meeting of the Missouri State Horticultural Society was printed in full in the last issue of the RURAL WORLD; but we take occasion to again remind our readers of the event and urge them, so far as possible, to attend. Northwest Missouri is not so noted as a fruit-producing section as are some other portions of the state, but that is in large part due to the great development of some many lines of agriculture in the section, and the consequent division of interest. But those who go to the St. Joseph meeting from other sections of Missouri and of other states where fruit raising is the main dependence, and, consequently, the most talked of industry, will be surprised to learn of the adaptability of Northwest Missouri for fruit raising, and the extent to which the business is carried on.

SOUTHEAST MISSOURI NOTES.

Editor RURAL WORLD: We made about one and one-quarter acres of land, bring us an income of \$25 this drought season. One might be a little surprised at first to think of such an income from so small an area in such a season. We have a vineyard of 375 vines that cover about three-fourths of an acre that yielded last year, when three years old, \$10. This, its fourth year, it turned off \$200 worth of grapes. The fruit was sold all the way from 33 cents a seven-pound basket down to 25 cents, and quite a lot of the grapes were sold loose in boxes at 4 cents per pound. Everyone who possessed a vine had grapes to sell this year. We met competition on every hand in our home market. People not accustomed to selling fruit would take any price offered them, and we had this to contend with, that Mr. So and So sold grapes at three cents per pound. We stopped offering any fruit until the rush was over; our fruit was then riper and the price ruled higher again.

Our melons were fine. Never before did we raise such a fine lot of melons—watermelons, 'cantaloupes and musk melons. The patch covered about one-half an acre, and the income from it was \$75. The melons sold all the way from 2½ cents up to 75 cents each; one musk melon measured 34 inches in length and 2½ inches around the largest part of it. A great many we sold at 25 cents, 35 cents and 50 cents each. Some fortune favored us in the melon line.

We met no competition of any amount—rather had the field to ourselves. We commenced selling melons on July 27, and finished on October 19. We ate our last musk melon on November 5, and have ripe water melons in the fruit house yet (November 19). This crop of melons was grown on a plot of ground too poor to have produced anything in the way of a grain crop, even in a favorable season; but it was certainly rich in plant food, such as the melon requires. The vines did not make a rank growth, and about the time they were in their heaviest bloom the mercury ran up to 114 and killed all the small melons. If we had been favored with a good soaking rain at this time there is no telling how many melons we would have had.

We had planted the land to pear trees (Kieffer and Garber) last fall and planted the melons there to have something to cultivate besides the trees that would help pay for the tilling, and the scheme worked well. We saved the life of every tree, had all the melons we could eat and real good pay for our labor. I am no professional melon grower, as anyone will know from the tone of this article. I can eat a good melon all right; in fact I like to have all kinds of fruit the year round. I am planting out strawberries now all the spare time I have.

St. Francois Co., Mo. E. W. GEER.

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Of the Illinois State Horticultural Society at Champaign.

The forty-sixth annual convention of the Illinois State Horticultural Society will be held in the Agricultural Building of the University of Illinois, at Champaign, December 10, 11 and 12, 1901.

Delegates will be present from other states, a program of unusual interest will be presented, and many prominent horticulturists will be present.

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LESSONS OF THE DROUGHT.

From the Strawberry Patch.

Editor RURAL WORLD: In the spring of 1894 we had a very dry time during all of the spring planting. There was no rain in April, and a general freeze up about May 10. We had to plant our strawberries in dry dust. I prepared my plants as usual, puddling the roots in a muck solution, and, besides, watered the plants when set. I got a perfect stand. While I was setting the plants an old strawberry-raiser, one who had been in the business when I was in knee breeches, came along and said: "Henry, you are only wasting time watering and being so particular. I set two acres yesterday and to-day."

Six weeks after he came to my place and I asked: "How is your strawberry bed?" "Oh, I plowed up the ground and put it in cucumbers," he replied. "Come and look at mine," says I. It takes to make a right start at the right time. If nature is at fault for awhile, supply the need. If your ground is in proper condition, and your work is properly done at setting time, it will assist greatly in overcoming any defects in nature.

In choosing the ground for a strawberry patch, I would advise taking that which had been in a cultivated crop, such as corn, potatoes or cowpeas.

During the winter I cover all my ground wanted for strawberries with a good coat of manure. If it is hauled out of the city, put it on thick and scatter as you haul it, and before plowing under shake out most of the coarse straw and haul this off for mulching bush fruits. Plow as early in the spring as the ground is in good condition, about four to five inches deep. If the soil is anything but sandy, follow up with a good subsoil plow, going eight to ten inches deeper. I am a firm believer in subsoiling for strawberries or any other cultivated crop. It makes a larger reservoir for water and assists subirrigation in dry weather.

I prepared all my strawberry ground this spring as just described, except three acres, which I concluded at the last moment to plant. I got this ground ready in a hurry without any manure or subsoil, and a blind man could tell the difference by walking across the field. I got all plants to grow that were set on it, but they made no runners to speak of. I can also notice a deficiency in some of the setting; all the plants for setting were dug out of the plant beds and prepared for setting by trimming and puddling the roots. We set with hand dibbles or trowels made for the purpose. They are about eight inches long and made of good steel, so they will keep sharp. Each man takes enough plants in a peach basket with the end cut out for a row. The roots being trimmed and puddled, they go in the hole made by the settler, with a quick jerk of the left hand. I had two new men setting, and while we were clear, good instruction, and watched them carefully, yet one did poor work, the effect of which could be seen all summer. In all the work on the field we could tell his row. He doubled a great many of the roots and the dry weather told on them from first to last.

Plants must be properly set, the land thoroughly prepared by good plowing and subsoiling, and well harrowed and rolled or planked. I harrow the land until it is thoroughly pulverized, then I plant it just ahead of the settler. I run a light harrow, and mark out the ground with a light sled drawn by a man, making three rows at a time. I plant in blocks of three rows of a variety, and varieties five feet apart, alternating perfect and imperfect varieties.

When the work is carried on for market purposes, and the house cellar or root cellar is not available, cellars are built for the purpose.

Each crop will give from three to seven pickings, according to variety and vigor of roots, which, when exhausted, are carried out for manure, or stored for dividing and transplanting in the spring. In preparing for market, three stalks are tied in a bunch and 12 of these bunches are tied in a bundle at the butts and tops. This is called a dozen and sells for 30 to 75 cents at wholesale, according to the season. When the forcing season is over, which will be indicated by the weak or spindly growth of the stalks, turn off the heat, or remove the roots to a temperature which will merely hold them dormant. As soon as weather and ground admit, divide the roots to two or three eyes, and transplant to rich gravel, four feet apart each way. With thorough cultivation they will be ready for forcing again the second year. We cannot too highly recommend the work to both farmers and gardeners, as the work is performed and the cash comes in when little else can be grown under glass.

This was something new in my strawberry field this season. I saw I had to have something different from a hoe, so I bought some ten-toothed garden rakes made for children, and cut three teeth from each side and made four-tooth scratchers and kept them going all the time from July 1 to October 1. As soon as a runner made its appearance it was covered up at the joint and a plant was soon started. In this way, by diligent work and thorough cultivation, there is not a row in the field, except on the three acres mentioned above, but has a fine stand of plants.

The great trouble with most fruit growers and farmers, when dry weather comes upon them, they give up and quit work. It makes them discouraged and nervous to see the effects of the drought upon their crops, and they do not want to see them until it rains, when there is nothing to see. If they had increased their efforts to supply the lack of moisture, by continued cultivation they would have saved their crops.

This has been a poor season for lazy people. The best of efforts gave poor results, but poor yields with good prices were a redeeming feature. Prices were the highest this season they have been for several years. Good strawberries were in good demand at high figures. Red and black raspberries brought from two to three times as much as last season. I sold my entire crop of reds at 20 to 25 cents per quart. After the berry season was over I found I had made more money than ever I had found those "six bottles paid for them." They paid because they were cured, for otherwise no druggist asks a penny for it.

I cannot better prove my own faith in this remedy. No physician can do more than pay for treatment if it fails. No other does so much. Won't you write a postal to learn if I can help you?

Simply state which book you want, and send to Dr. Shoop. Book No. 1 on Dyspepsia. Book No. 2 on Heart Disease. Book No. 3 on the Kidneys. Book No. 4 on Rheumatism. Book No. 5 on Rheumatism.

Mild cases, not chronic, are often cured by one or two bottles. At all druggists.

Strong soap suds makes an excellent wash for trees and destroys lice.

Decay follows ripening without any apparent dividing line. Decay is caused by heat and microbes. Bruises hasten decay.

Sod berry patches needed no pickers this season; see that you have no such patches next spring. H. W. HENRY.

LaPorte Co., Ind.

FORCING RHUBARB IN THE DARK.

(This article was written by J. E. Moore, the successful Michigan gardener and winner of "The Homesteads" first prize in its great garden contest last year, who won \$750 in cash. Forcing rhubarb is intensely practicable and profitable to New England truck growers.)

The method of forcing rhubarb in the dark is so simple and inexpensive that growing for home use or for the market is entirely practicable. Last winter I prepared a small bed in my house cellar to show how easily and cheaply it could be forced. The bed contained but 10 roots and was placed at the end of the cellar, close to a potato bin. Not wishing to heat the entire cellar, the bed was shut off from the main part by simply tacking an old hemp carpet to the floor and sleepers above, letting it fall to the cellar bottom. The wall formed one side of the inclosure and the carpet was nailed to the floor above so as to form the other side and ends. The roots were dug in December and left on the ground until solidly frozen. They were then stored in an old hotbed and simply covered with boards until January 15. They were then set close together on the cellar bottom and loose earth was worked under and between the bunches to fill the



Live Stock

DATE CLAIMS FOR LIVE STOCK

SALES.
Dec. 10, 11, 12 and 13—Kirk B. Armour and Jas. A. Funkhouser, at Kansas City. Hereford cattle.
Dec. 12—C. D. Bellows, Maryville, Mo., at South Omaha. Shorthorns.
Dec. 13-19, 1901—Gudgell & Simpson, C. A. Stannard and Scott & March, Herefords, at Fort Worth, Texas.
January 25 to 31, 1902—Sothams' annual Criterion Sale, at Kansas City.
Jan. 14, 15 and 16—Cornish & Patten, Osborne, Mo., and others, at Kansas City, Mo. Hereford cattle.
Feb. 11-12, 1902—Redhead Anstey, Boyles and others, at South Omaha, Neb. Hereford cattle.
March 6-7—J. M. Forbes & Son, Henry, Ill.; J. F. Prather, Williamsburg, Ill.; S. E. Prather & Son, Springfield, Ill.; C. B. Dustin & Son, Summer Hill, Ill.; T. J. Wornall, Mosby, Mo., and others, at Chicago, Ill. Shorthorns.
March 11—W. P. Nichols, West Liberty, Iowa. Shorthorns.
June 19—C. E. McLane, Danville, Ind., at Indianapolis. Double Standard Polled Durhams.
The "National Hereford Exchange" under management of T. F. B. Sotham, as follows:
March 25-27, 1902—Chicago.
April 23-24, 1902—Kansas City.
May 27-29, 1902—Omaha.
June 24-25, 1902—Chicago.
POLAND CHINAS.
Nov. 22—J. B. Fink, Herborn, Ill.
ABERDEEN ANGUS CATTLE
Dec. 3-6—International sale, W. C. McGavock, mgr., Chicago.
Feb. 4-6—Combination sale, W. C. McGavock, mgr., Chicago.
Jan. 21—E. Axline, Oak Grove, Mo.
April 10-11—Combination sale, W. C. McGavock, mgr., Kansas City.
June 10-11—Combination sale, W. C. McGavock, mgr., Chicago.
NATIONAL SHORTHORN SHOWS AND SALES.
March 19—At Kansas City; W. R. Nelson, dispersion sale.
March 20—At Kansas City; B. B. and H. T. Groom, Pan-Handle, Texas.
May 14—At Kansas City, Mo.; W. T. and H. R. Clay, Plattsburg, Mo.
Dec. 2-7—Chicago, Ill.
Dec. 5-6—Chicago.
NATIONAL HEREFORD SHOWS.
Dec. 2-7—Chicago, Ill.
NATIONAL HEREFORD SALES.
Dec. 3-4—Chicago.

THE INTERNATIONAL LIVE STOCK SHOW.

November 30 to December 7, at Chicago.

During the International Live Stock Show, which will open at Chicago next Saturday, November 30, continuing until December 7, there will be three grand sales of pure bred cattle. The first will be the Aberdeen-Angus sale, on December 3 and 4.

THE ANGUS OFFERING.—The four animals consigned to the Angus sale from the herd of Anderson & Findlay, contain the blood of their grandly bred Pride and Erica bulls. The yearling bull Lord Fanatic, is by the imported Pride bull Pacific, and out of the Queen Mother dam of the same strain as the champions and record-breakers Gay Lad and Lucia Estill. He is a remarkably well bred youngster and also offers great possibilities on account of his superior individuality. Coquette 11th of Allendale, is just two years old, sired by the World's Fair prize winner Bulalia's Eric, a son of the renowned Heather Lad 2d, and out of Coquette 8th of Lake Forest, a descendant of the imported cow Coquette 4th, whose daughter, Coquette 11th, was champion female in a class of 88 competitors at Smithfield, London show. This grand Coquette 11th of Allendale, is in calf to the imported Pride bull Pacific, a prize-winner at the Perth, Scotland, show and sale, spring of 1901. Silvia 4th, a daughter of the Coquette 4th bull Conqueror 2d of Lake Forest, and the cow Silvia 2d, by Eric, unites the blood of the Ericas, Blackbirds and Coquettes, and is in calf to the fine imported bull Elberfeld, from the Ballindallagh herd of Sir George Macpherson Grant. The fourth entry from the Allendale herd is the Fyvie Flower winning heifer Verba 19th, also in calf to imported Elberfeld.

D. K. Pearson, Goldfield, Ia., contributes the bull Make Peacer, and three splendid females. Make Peacer is a son of the champion Lord Woodlawn and Martha of Longbranch 2d, by the champion Heather Lad of Emerson 2d. This youngster is one of the best of the get of the junior champion of the Trans-Mississippi Exposition, and this is indeed high praise.

A son of Lord Woodlawn, Woodlawn, was recently sold by Mr. L. McWhorter for \$1,750, and another son defeated all comers at the Iowa State Fair this year. The Lord Woodlawn bulls are very superior and there are two of them consigned to this exposition sale. Mr. Pearson also includes one of the two daughters of Heather Lad of Emerson 2d consigned to this sale. She is a Duchess of Easter Tullock, and a beautiful breeding cow, just four years old. In the Pride herds, Pride of Lakeside 2d, by the illustrious sire Heather Blackbird, out of a dam by Golden Abbott, Mr. M. A. Martin, Wall Lake, Ia., has certainly contributed a gem. She is a beautiful heifer and a half-sister to the champion over all breeds, Barbara McHenry 13th. Mr. Martin has also done the proper thing by the International Exposition sale in contributing the three-year-old heifer Maggie of Lakeside, by the celebrated Black Jam, and out of a dam that is a half-sister to the \$2,000 cow in the Estill dispersion. Daughters of Black Jam are just about priceless, as the owners of this bull are selling no females from him.

After Abortion Cows should be injected with Hood's breeding powder. Used in connection with Hood Farm Abortion Cure it is the best means of preventing abortion.

Two sets each, \$1 and \$2.50. To any railroad or express point in U. S., 25 cents additional. C. I. Hood & Co., Lowell, Mass.

GREAT COMBINATION SALE OF REGISTERED HEREFORD CATTLE

To be held at the Northern Division, Union Stock Yards,

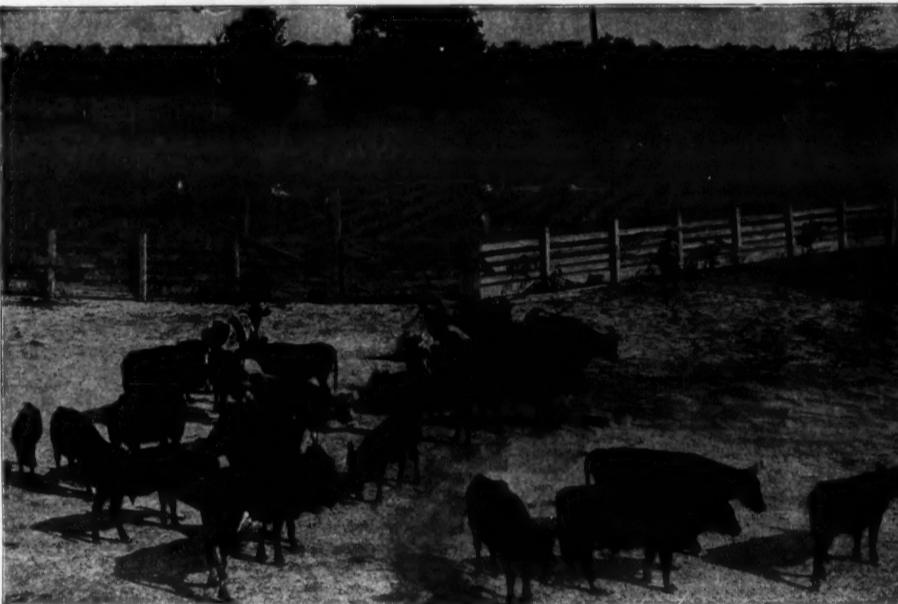
FORT WORTH, TEXAS,

TUESDAY AND WEDNESDAY, DEC. 17-18, 1901,

By Gudgell & Simpson, of Independence, Mo.; Scott & March, of Belton, Mo., and C. A. Stannard, of Sunny Slope Farm, when 150 head of registered Herefords will be sold, consisting of 100 bulls and 50 heifers, ranging in age from 8 months to 3 years old. Forty of these cattle have been inoculated as a preventive for Texas Fever by Dr. Connaway of the Missouri Agricultural College, and a certificate from Dr. Connaway, giving the animal's tattoo number, will be furnished with each animal. This should be of special interest to buyers from below the quarantine. The cattle to be sold in this sale are in nice thrifty condition and fair representatives from the herds consigning them. Among them are prize winners at the leading State and National Fairs of 1900 and 1901. Sale will commence promptly at 10 o'clock each day. As these cattle will sell in the Northern Division of the Stock Yards, buyers from north of the quarantine can safely buy them. For catalogues, address Gudgell & Simpson, Independence, Mo.

GUDGELL & SIMPSON, SCOTT & MARCH, C. A. STANNARD,
Independence, Mo. Belton, Mo. Emporia, Kan.

AUCTIONEERS: Cols. R. E. Edmondson and J. W. Sparks.



CATTLE AS THEY COME FROM THE RANGE AFTER WINTERING OUT IN WASHINGTON COUNTY, MISS., ON SOUTHERN RAILWAY.

and Maggie of Lakeside presents a rare opportunity to secure one of the best of the get of this famous bull. Mr. Martin also includes the yearling bull Victor of Lakeside, bred by Mr. McWhorter, sired by a son of Duke of Marborough, and out of a daughter of Victoria 3d, the dam of Clansman Chief, the great Escher stock bull; and Black Victor, the bull in service along with Gay Lad, in the herd of Mr. Martin of Ohio. Each consignment of the 20 contributors to this great sale would justify having columns written about it. No such collection has ever before been offered to Angus breeders in this country. The individuals are absolutely choice and the catalog reveals the fact that there are an even dozen of the record-breaking, champion-producing Queen Mothers, seven of the aristocratic Blackbirds, six of the renowned Heather Blooms, four of the historic Prides, and an equal number of the highly prized, high priced Drumlin Lucyas and all of the other famous specimens. Gay Lad, Gay Blackbird, Heather Lad 2d, Heather Lad 4th, Heather Lad of Emerson 2d, Moon Eclipse, Ball's Eclipse, Eulalie's Eric, Young Wellington, Henry Blackbird 6th, Lord Woodlawn, Imp. Pacific, Imp. Prince of Kerrera, Black Monarch of Emerson, Beau Ida and the Scotch bull Siberian and Field Marshal of Gulsachan are among the best of the herd.

THE SHORTHORN SALE is the last of the series of sales for the year 1901, to be made under the management of the American Shorthorn Breeders' Association, and will be held in the Live Stock Pavilion, Chicago, Ill., during the time of the International Show, November 30 to December 7, 1901. The sale will begin at 1 o'clock p. m., Thursday, December 5, and Friday, December 6.

The catalog is sent forth with the positive assurance that this offering is much better than that of any sale yet made under the management of the association. In this sale breeders have consigned some of the choicest specimens of their herds, and this should have been done in all former sales. Intending purchasers can visit this sale with the absolute guarantee that they will find "plums" of the breed that have been gathered from the "bonnie braes" of Scotland and from some of the best herds of our own country, than which no country can produce better.

The catalog presents a long galaxy of illustrious sires and dams that have impressed the Shorthorn on the history of domestic animals as no other breed has been impressed, and have made the breed in its best development, the synonym of beauty and symmetry. To what do the illustrious breeders of the past owe their honored places in history but to the fact that they were enabled by careful and intelligent selection to produce these famous sires and dams? The excellent foundation laid by them has been built upon and improved by their successors, and the result of that work, or a portion of it, is now offered to the public, with the belief that it will prove a source of beauty to all and with the hope that they will prove profitable to those who purchase. Send to B. O. Cowan, Aast. Secretary, Springfield, Ill., for a Shorthorn catalog.

THE HEREFORD SALE will be on December 4 and 5. We quote from the Hereford catalog the following:

"One year ago, on the afternoon of December 5, when the auctioneers' voices had ceased after crying the most successful sale ever held under the auspices of the American Hereford Breeders' Association, the question uppermost in the minds of the Hereford enthusiasts was 'Can we equal this sale next year?' The question was a serious one. The failure to do so, even with an offering of approximately equal merit, would be taken by those dependent upon superficial signs only as an evidence of retrogression, a charge never before laid at the door of the Hereford people. This catalog, however, should settle any fears on that score. To those who have seen any number of the cattle herein listed, have noted their numerous successes in the show rings of the three previous association shows, and realize that the 'cream' of the breed only is to be offered at this time, the question as before stated is answered most positively in the affirmative."

The sale being held at the Union Stock Yards, gives ample shipping facilities, and at the close of the same stock can be shipped without delay to any railroad point.

Very favorable passenger rates will be given by all railroads. Ask your ticket agent for terms.

Auctioneers—Cols. F. M. Woods, James W. Parks, R. E. Edmondson and C. M. Jones.

THE GENTRY BROS., Sedalia, Mo., are good people from whom to buy purebred Shorthorns, either of the Bates or Scotch breeding, that are worth the money asked for them. A trial order will prove this.

ARMOUR-FUNKHOUSER Public Sale

Hereford Cattle.

Tues., Dec. 10, and Wed., Dec. 11, 1901.

KANSAS CITY STOCK YARDS SALE PAVILION,

We shall offer 90 head of American and Imported Hereford females, well advanced in calf, or with calf at foot, and 25 head of American and Imported bulls.

The entire lot was selected under an arrangement between the late Kirk B. Armour and James A. Funkhouser to make it form their greatest public offering.

We shall leave nothing undone to that end and pledge ourselves to present a grand lot of cattle.

WRITE FOR CATALOGUE.

Chas. W. Armour,

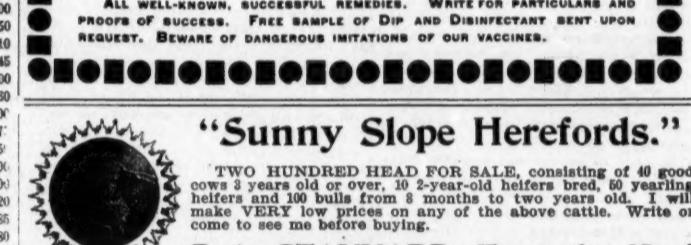
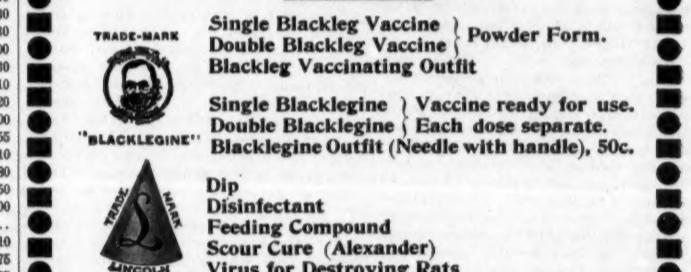
James A. Funkhouser,
For Estate of Kirk B. Armour, Kansas City, Mo.
Plattsburg, Mo.



The "tops" of these three great beef breeds to be sold at Auction. The Premier Beef Cattle sales of the year. Contributed to by the leading breeders, and under the management of the National Associations.

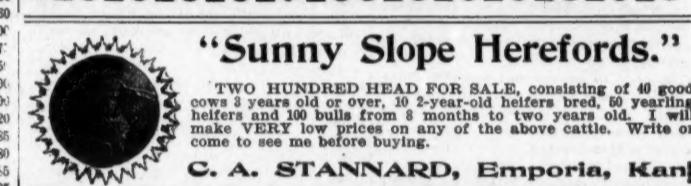
ADDRESS:

For Hereford Catalogues,
C. R. THOMAS, Secretary,
225 West 12th St. KANSAS CITY, MO.
For Aberdeen Angus Catalogues,
W. C. McGAVOCK, MT. PULASKI, ILL.



Dip
Disinfectant
Feeding Compound
Scour Cure (Alexander)
Virus for Destroying Rats

ALL WELL-KNOWN, SUCCESSFUL REMEDIES. WRITE FOR PARTICULARS AND PROOFS OF SUCCESS. FREE SAMPLE OF DIP AND DISINFECTANT SENT UPON REQUEST. BEWARE OF DANGEROUS IMITATIONS OF OUR VACCINES.



TWO HUNDRED HEAD FOR SALE, consisting of 40 good cows 3 years old, over 2-year-old heifers, 2-year-old bulls, 100 short-horned heifers 3 years old, over 2 years old, 100 short-horned bulls 2 years old, 100 bulls 3 years old, 100 bulls 2 years old, 100 bulls 1 year old, 100 bulls 10 months old, 100 bulls 8 months old, 100 bulls 6 months old, 100 bulls 4 months old, 100 bulls 2 months old, 100 bulls 1 month old, 100 bulls 10 days old, 100 bulls 8 days old, 100 bulls 6 days old, 100 bulls 4 days old, 100 bulls 2 days old, 100 bulls 1 day old, 100 bulls 10 hours old, 100 bulls 8 hours old, 100 bulls 6 hours old, 100 bulls 4 hours old, 100 bulls 2 hours old, 100 bulls 1 hour old, 100 bulls 10 minutes old, 100 bulls 8 minutes old, 100 bulls 6 minutes old, 100 bulls 4 minutes old, 100 bulls 2 minutes old, 100 bulls 1 minute old, 100 bulls 10 seconds old, 100 bulls 8 seconds old, 100 bulls 6 seconds old, 100 bulls 4 seconds old, 100 bulls 2 seconds old, 100 bulls 1 second old, 100 bulls 100 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Home Circle

Written for the RURAL WORLD.
FAULTS.

Instead of seeking other's faults,
Each should look to his own;
For then less cause he'd find to cast
At them a single stone.

The mote that's in our neighbor's eye,
However plainly seen,
Might be as nothing could we note
Within our own beam.

Hence, one and all should weigh with
care.

The harm their words may do,
And not of others always speak,
Although they know 'tis true.

FRED O. SIBLEY.
Ostego Co., N. Y.

Written for the RURAL WORLD.
FROM PEARL M.

My Kenilworth ivy is just as pretty as it can be, many thanks to the one who sent me the seed. I wish she would write. The "star flower" is well worth cultivating. We got our seed from Pennsylvania. One plant of the star flower we had in a bed grew until it measured in height five feet and five inches. One leaf that I measured was 22 inches in length and 13 inches in breadth. I counted 57 perfect flowers; they are white and grow tube-shaped, and the end of the flower forms a perfect star.

The chrysanthemums are here, the red and the white and the yellow, that shines with the sun's own light. Surely they are a beautiful sight. Our white ones are mostly monthlies and can be grown from slips. I have watered and cared for my sweet violets as faithfully as a mother would care for her child. A friend who is teaching in Fort Worth, Texas, sent them to me last April. They are booked to bloom this November. In the summer I protected them from the fierce rays of the sun, and now I cover them from the frost.

You will begin to think flowers are all I care for, but there are many other things I love, for instance, weeds and English sparrows. Did you ever examine the leaf of the common ragweed? It is beautiful. A friend of mine once said concerning a boy: "You might as well take a rag weed and cultivate it, and try to make something out of it, as to try to make anything out of that boy."

I looked the rag weed up for its good qualities. I examined the leaves—there could be nothing prettier. I laid a leaf down and traced it on white paper; then I transferred it to muslin and worked it with a chain stitch in red, and concluded there could be something made out of a rag weed. An old lady told me that rag weed tea was very good for bowel trouble, but I never tried that, so I could not recommend it. But I have hopes that the boy will yet amount to something.

When I was visiting a friend in Ohio she showed me some variegated rag weed that was pretty enough to adorn any yard. It made me think of "Snow on the Mountain," only the mingling of the white and green seemed prettier.

And the birds—the pretty English sparrows are the only ones that come near the house now. They will hop along from one paling to another until they reach the well-house, then hop down to the pan that covers the top of the tiling, for a drink. The water dripping from the bucket, when it is hung up, is enough for a drink for the birds. One day I was alone (the water is too hard for me to draw), and I did not think of the birds until "way in the afternoon; then I carried some water out and poured it in the pan. It made me think of Mrs. Kruger of South Africa, who, when the people were making a statue representing her husband, told them to make the top of the hat hollow, or rather an indenture in it, so as to hold water for the birds. We anxiously await the Thanksgiving postal cards.

PEARL M.
We are glad of Pearl M.'s delight in finding beauty in all things. So many of us are prone to see the marks of imperfection and the defects in life. We thank you, Pearl M., for these helpful words. We hope that you may find many opportunities to speak them in these change.

DYKE.
Written for the RURAL WORLD.
GOD'S ACRE.

Why is it that people living in the country neglect their burying places so much? Everything to beautify them is at hand, but almost always they are left to neglect and decay. The fences are rotted down, cattle grazing in it where they will. It is a dreary, desolate looking place. Not much wonder that the school children scamper by it, by day, nor that their elders unconsciously quicken their pace if they are passing at night.

How different it is in the city, where every flower and shrub has to be bought. There on Saturdays at the markets you see people of all classes buying flowers to take next day, Sunday, to the cemetery. The rich woman, whose carriage is waiting while she selects rare plants and blooms; and the poor mother who will have to economize for days to pay for the violets that she is buying for her baby's grave. Here they meet on equal terms: glances pass between them, for they share the same unspoken sorrow in each other's heart—the empty arms, the aching pain that never stills. Sunday the street cars are crowded with people going out to the cemeteries. Whole families sometimes are carrying springing cans, trowels, etc., for Sunday is the only day the father can spare. How they dig, and weed, little toils and all, for it is a labor of love, and all around are others engaged in the same way.

Sometimes old friends meet after long absence. A glance at the grass-grown mounds answers the question their lips hesitate to put. Then there is much to tell of the happenings of parted years, and the loved ones who "are away." God grant we may rest as calmly when our work, like theirs, is done. As evening draws on each returns home, cheered and hopeful, for have not the flowers, even

In a Glass of Water.



LION COFFEE

the same test. It leaves the water bright and clear, because it's just pure coffee.

The sealed package insure uniform quality and freshness.

Written for the RURAL WORLD.
AN INVITATION TO CALL.

If any of our Home Circle writers, or any of the RURAL WORLD contributors attend the poultry show at this place next month, December 13-15, I would be very glad to see them at my home, No. 1002 Macanally street. If we all had RURAL WORLD badges I could go in the crowd and pick them out and introduce myself; but as we have not, I hope they will come to see me. I read all departments, and would like to meet the poultry and other writers as well as those of the Home Circle.

I want to ask again for "Mambrino Junior"; he seems to have disappeared, also the "Parson"; no one else can fill his chair.

What an interesting addition to the Home Circle "Dype" is proving to be. We are glad he came in, and hope others of the front-page will step around to visit there. Just to clear out the weeds, repair the fences, and each family plant a few hardy flowers, would wonders. Very soon all our sweet blooms would go there. And in the lone watches of the night, when our thoughts are with those gone before, will it not bring heartsease to think of their resting places, where the nestling birds chirp in their sleep, and softly, lovingly, the moon looks down as if in benediction on each flowered-grown mound?

MARY SHAW.
Jefferson Co., Mo.

Written for the RURAL WORLD.

OUR DREAM OF CLIFFLAND.

These long winter evenings we enjoy sitting by the parlor stove in our cozy den, luxuriating in its warmth, reading "the latest literature of the day," including the bright and familiar pages of the RURAL WORLD, especially the excellent articles in the "Home Circle." We greet the old and the new contributors with a hearty welcome. There is always a volume of thought in every sketch. We pause to ask what has become of "Ross Autumn?" Have seen nothing from her for a long time.

As we gradually glide away into dreamland our mind reverts to those days of long ago when amidst the density of the solitude surrounding the Cave and Hollow:

"The oak and birch, with mingled shade At noontime there a twilight made."

and—

"No murmur wakes the solemn still, Save the tinkling of a fountain rill."

Then it was that so many thrilling episodes occurred, much of which has come down through the long vista of years in tradition and are but romance to the people of to-day. The participants in those incidents have run their race for good or evil and passed over to the other shore.

Some of the scenes already narrated and others of still more thrilling interest yet to be told, rise before us in vivid pictures, and, though we have the best evidence confirming their reality, we can scarcely realize in the uneventful routine of to-day that so many startling events have marked the pages of its history, yet in those days.

"It was a wild and strange retreat, As e'er was trod by mortal feet."

and as we take up the threads of tradition and weave into story the many-hued strands of human experiences and the strange fatalities that so universally overtook the evil doers, it is but another proof that "Truth is stranger than fiction."

But we have already occupied sufficient (perhaps too much) space with our dreams. We are aware to the realities of the present hour and compare the changed aspect that civilization has wrought in the surroundings of this farmed region, and while cogitating, listen to the wind's weird-like noise as it whistles around our den, and wonder why such things have been, and of the magic wand that has produced so great a change.

DYKE.
Written for the RURAL WORLD.
GOD'S ACRE.

The trained nurse adjusted her cap and retied her snowy apron. Yes, she said, I see a great deal of misery, but most of it comes from a habit patients have of thinking that they are the only sick folks in the world. They discuss every symptom and gloat over every pain as if the disease were a new one and they had just discovered it.

The patient I have now is not of that kind. She is old and deaf, and bedridden with an agonizing disease. She said to me: "Life is so good! I hope you will get as much happiness out of it as I do, when you are as old."

"Life good!" I said. "But you have been sick for many years."

"Yes, but who ever had such a pleasant room to be sick in? I can look out at the sky and mountains from this window. I might have had only smoky roofs outside."

"But," I said, "you can't hear without this trumpet."

"But I can see! The mountains change; they are always company."

"You have so much pain," I insisted "that I should think you wouldn't care for the mountains."

"Why, I don't half the pain some people have! Some days there will be nearly an hour that I don't have a twinge and I lie here and look at the sun and the hills and thank God. Life is so good and beautiful."

The effect of those who come in contact with such patience and genuine submission to the inevitable cannot fail to be of lasting benefit, and make life better worth living.—Selected.

Written for the RURAL WORLD.

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MARY SHAW.
Jefferson Co., Mo.

Written for the RURAL WORLD.

OUR DREAM OF CLIFFLAND.

A gentleman in Pennsylvania has a queer document which came into his family's possession many years ago, and shows an interesting phase of Andrew Jackson's character as well as a glimpse of the simple times of his presidential term.

It appears that a clerk in the State Department contracted a tailor's bill for \$6.50, and the tailor, finding himself unable to collect the amount, laid the matter before the President in an appealing letter.

Jackson promptly decided that this was a matter to which he must attend personally; so he transmitted the tailor's letter to the Secretary of State, with the strong recommendation:

"Referred to the Secretary of State. If on inquiry the fact stated be true, unless the clerk pays up his debt let him be forthwith discharged."

"The Government would become a party to such swindling provided it permitted its officers to become indebted for necessities and not see that they paid their debts out of their salaries."

"Honest men will pay their debts; dishonest men must not be employed by the Government." A. J.

"This case is referred to Amos Kendall, Esq., on \$10 per month being secured to C. E. Koff, Mr. Gooch to be continued in his office." A. J.

—Youth's Companion.

"WILL YOU TAKE A SHEEP?"

An old farmer, about the time that the temperance reform was beginning to exert a helpful influence in the country, said to his newly hired man:

"Jonathan, I did not think to mention to you when I hired you that I think of trying to do my work this year without rum. How much more must I give you to do without?"

"Oh," said Jonathan, "I don't care so much about it; you may give me what you please."

"Well," said the farmer, "I will give you a sheep in the fall if you do without rum."

"Agreed," said Jonathan.

The eldest son then said, "Father, will you give me a sheep, too, if I do without rum?"

"Yes, Marshall, you shall have a sheep if you will do without."

The youngest son, a stripling, then said, "Father, will you give me a sheep if I will do without?"

"Yes, Chandler, you shall have one also if you will do without."

Presently Chandler spoke again,

"Father, hadn't you better take a sheep, too?"—Glad Tidings.

—Selected.

To darn table linen, spreads, etc., remove the foot from the sewing machine, place the thin place or hole in an embroidery hoop very firmly. Then stitch back and forth one way; then turn and darn it across the other way, and you will know where it was darned. Use thread to match the texture of the cloth.

APPLE RECIPES.

APPLE FRITTERS—Peel the apples and take out the core with core cutter, Cut across in thick slices, dip in sugar and let them lie for one hour. Dip the slices in batter and fry until a light brown color. Dip again in sugar and noise;

There was less of cheer and mirth; The sad old town, since it lacked its boys.

Save only the birds and bees.

There wasn't a messenger boy—not one.

Speed as such messengers can;

If people wanted their errands done They knew how the game was played.

The dogs were sleeping the livelong day; Why should they bark or leap?

There wasn't a whistle or call to play, And so they could only sleep.

The pony neighed from his lonely stall, And longed for saddle and rein;

And for the runners made; Chirped only a dull refrain.

The cherries rotted and went to waste—

There was no one to climb the trees;

And nobody had a single taste,

Save only the birds and bees.

There wasn't a messenger boy—not one.

Speed as such messengers can;

If people wanted their errands done They knew how the game was played.

And, oh, what a horrid dream!"

—Selected.

To darn table linen, spreads, etc.,

place the thin place or hole in an embroidery hoop very firmly. Then stitch back and forth one way; then turn and darn it across the other way, and you will know where it was darned. Use thread to match the texture of the cloth.

APPLE VINEGAR—Throw into a jar from time to time the parings and cores (if sound), add enough soft water to cover the liquid in which the apples were cooked and boil down to the candy stage, about the crack degree. Place the boiled apples in the dish in which they are to be stewed and pour the hot syrup over them. When cold they will be coated with a soft candy, their appearance improved thereby.

DON'T HUNT TROUBLE.

Honey, if you looks for Trouble,

You kin' fin' him, sho!

Ef you hunts, you'll fin' him double Sneakin' roun' your do!

He's so glad tow hab you know him;

Up he'll hang his hat—

Stay fo'eb—less you show him

You hab' none ob dat!

Now I gwine tow tell you—suttin'

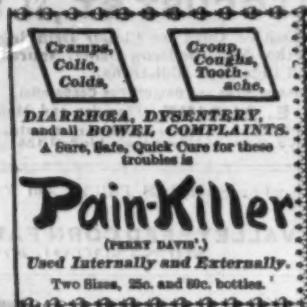
(Larnt it yeas ago)

Ef you drap yore winnow-cuttin',

An' shet tight yore do!

He sure tire ob payin' tention

Whar he am despidin'



The Pig Pen

PIG PASTURE.

Editor RURAL WORLD: Mr. A. G. Crenshaw inquires in RURAL WORLD of October 28, concerning hog pastures for next season. Conditions here in Butler County, Kansas, are not essentially different from those of Mr. C.'s location, and my experience the past season may be of some use to him. Of course, one season's experience is not conclusive, yet any plant that would give a good account of itself such a season as the present one has been, is worth trying again.

Last spring as soon as the ground was in good condition to work after the heavy rain, I plowed about one acre of good fertile loam on heavy clay subsoil. Then I harrowed it thoroughly and drilled in two bushels of oats and six pounds of Dwarf Essex rye, using superior drill with press wheels. Both came up quickly and made vigorous growth. About the middle of May I turned six broad sows and 30 March pigs—just weaned—into the lot. The sows had no more grain. The pigs had a liberal feed of shipstump and soy bean meal once a day for three or four weeks, then that was discontinued and the 36 lived wholly on the oats and rye except two rows of sorghum drilled across one side of the lot at the same time the other was planted—this latter for comparison.

Very little rain fell after the planting, and the oats and sorghum disappeared before July. The rye made a less vigorous growth as the drought became more pronounced, but continued to grow, and the 36 hogs and pigs continued to thrive—the pigs making a fine healthy growth, but no surplus fat. On July 16 I extended the pig range to include a considerable quantity of scattered wheat and oats where I had threshed, but the sows were limited to the rye until a few days before farrowing in September. They were then in excellent condition, and gave me an average of seven strong, vigorous pigs.

We had a little rain in August, after which the rye made a more rapid growth, and the pigs having a little wider range made a distinct gain. After September 1 they were all confined to the rye again except that the sows had a ration of wheat. Then the rye began to disappear, and a very large ration of wheat and oats was substituted and increased as the rye failed. At the end of September the rye was all gone and the most satisfactory experiment that I have tried for many years was ended.

Next spring I will plant as before, except that I will use 10 pounds of rye seed and three bushels of oats.

I planted some cow peas last spring, but they gave very little return. I will plant all the seed I raised, which is about one-third the quantity planted. Soy beans were a partial success, in spite of the drought, yielding eight or nine bushels per acre, which fairly entitles them to a more extensive test. They were also much better last year and are superior feed.

The RURAL WORLD suggests sowing rye for fall and winter pasture, but I cannot imagine why. For some years I sowed wheat and rye side by side, and never failed to get more pasture from the wheat, more bushels at threshing time and generally more per bushel for the wheat—giving wheat the advantage in every respect. My experiment in Illinois were never thoroughly carried out, but pointed to the same result.

A manufacturer of stucco kindly donated a ton and a half of land plaster and raw gypsum with which I am experimenting on wheat, fall sown, the rye and alfalfa. While my experiments cannot be exact on account of irregular sowing, your readers will be welcome to such conclusions as I am able to reach if they are interested. I shall also extend the experiments to spring planting.

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When they are five to six weeks old I begin to feed a little oats and increase the amount as fast as they are eaten up clean. I think that the grain fed to the immature hog should comprise oats, barley, rye, bran, shorts, and feeds of this character. To the hog that we call mature we should feed corn. For well-developed hogs, corn is my feed, as it is the cheapest grain that can be obtained; but I also feed a good many oats and considerable quantities of shorts. As a rule, I think that pigs under 100 pounds weight are fed too much corn. Shorts are excellent feed for the growing hog, but I never thought much of bran for hogs. I think that bran is less valuable than any whole grain. Shorts fed with whole grain are more valuable than when fed by themselves. Barley when ground makes an excellent feed for hogs, as does rye, and I think that a larger quantity of these kinds of grains could be fed to advantage.

THE HOG FROM BIRTH TO SALE.

Another Chapter in John Cowrie's Story of the Hog As Told Before the Kansas State Board of Agriculture.

THE PASTURE.—Another important thing is the pasture. I am aware that conditions are different in Kansas from what they are in Iowa. Perhaps in the western part of the state you may not be able to maintain a good pasture; but if you are to make a success of hog raising you must have range.

I have one pasture, hog-tight, forty acres, which is close to a hog house. You should have two or three pastures, and, after putting one in pasture five or six years, turn it to corn. Don't have too small a pasture—five or six acres. They will root, and then you will have to put rings in their snouts. I don't like to do that. Give them a large field and there will be practically no rooting. Confine a hog and he will start around in 'em morning.

In the summer the hog gets up about four o'clock and starts around the fence to see if there is an opening. If there is he will find it; but if he makes a start and goes around, and there is no opening, he begins to root. If the inclosure is small; but if you put him in a forty-acre pasture, and he starts around, it will take him a mile, and he gets tired before ten o'clock and lies down, or goes to feeding. Give them an eighty-acre tract and it is good pasture all the time.

THE BREED.—It is not my intention to say anything about the breeds of swine. All the leading breeds are good enough for me. I care not what breed you select. However, I know that in Iowa we have been breeding our hogs to disappear, and a very large ration of wheat and oats was substituted and increased as the rye failed. At the end of September the rye was all gone and the most satisfactory experiment that I have tried for many years was ended.

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at different times during the nursing period, it is essential for best results to extend the time of nursing to its full limit of from 10 to 12 weeks, and know how and what to feed the sow in order to maintain her vigor and get the greatest possible growth on pigs.

This then constitutes the foundation lesson on how to feed milk and the nearer we imitate nature, the more successful we will be. First the milk is blood warm and sweet; it is given at intervals in quantities not larger than to easily digest and assimilate, hence its effect on growth; it is mixed with coarser and forcing food as the pig learns to eat.

Now, when one wishes to wean pigs at the early age of six to seven weeks and substitute a milk deficient in the elements above mentioned, one should commence to add daily for each pig about two ounces of fine ground grain—say middlings with some boiled flaxseed to supply the fat, feed no more than they will eat up clean and leave them hungry for their next meal, feeding three or four times a day. It is always best to commence the process of feeding before weaning, as abrupt changes in pig feeding (in fact this holds good in larger pigs) are accompanied with bad results. Now this contains a lesson for all future milk feeding. Is it not true that the pig from birth to weaning commences to take some coarse food with the milk?

Then why will some insist, when they have plenty of milk, on feeding that and that only, without an addition of ground grain—or barley or oat meal, 25 pounds to 100 pounds of milk, or one pound of oil meal? We should remember when feeding separator skim milk and butter-milk that it is deficient in fat to act as a heater and lubricator. When these additions are avoided and milk is fed exclusively, as a rule constipation will ensue; later will follow piles, para/ysis or lameness of loin, and more so if the pigs are confined to yards and small inc

The Markets

WHEAT—Cash Market—No. 2 red sold at 75¢/buc this and 77¢ E. side, and on trk. at 76¢/buc; No. 2 red quotable at 75¢/buc and No. 4 at 72¢/buc. No. 2 Kansas sold at 73¢/buc and No. 3 worth 74¢.

CORN—Cash Market—Saled by sample of No. 2 at 66¢, No. 3 and No. 5 yellow at 64¢/buc spot and 64¢/buc to arrive; No. 2 white, old at 67¢/buc; No. 3 white, old at 65¢/buc.

OATS—Cash Market—Saled by sample of No. 2 at 45¢/buc, and choice 45¢/buc; No. 3 Northern at 46¢/buc; No. 2 white at 47¢/buc; No. 3 white at 46¢/buc; No. 4 white at 45¢/buc for poor to 46¢/buc. No. 5 mixed worth 45¢/buc.

RYE—No. 2 quotable at 62¢; No. 3 60¢/buc.

BRAN—Sold this side at 8¢ and 10¢/buc. trk.; mids quotable at \$1.00/15; bran sells at 8¢ at mill.

SHIPSTUFF—\$1.00/10 this side; at mill \$1.15/10; mixed feed, in 100-lb. sks., at 8¢.

HAY—Timothy \$1.50/15 for choice; \$1.50/15 for No. 1, \$1.25/12 for No. 2; clover \$1.12/12 for No. 2 and \$1.25/14 for No. 1; clover-mixed ranges at \$10 to \$13.50; prairie this side \$14 for choice to \$12.50 for No. 1 and \$11.50 for No. 2; alfalfa \$11.50.

PRICES ON CHANGE.

The following tables show the range of prices on future and cash grains:

	Closed	Ranged	Closed
Saturday.	Yesterday.	Yesterday.	
Wheat			
Dec. .74¢ a	74¢/6¢/7¢	74¢/6¢/7¢	62¢/69¢ b
May .77¢ a	77¢/78¢	77¢/78¢ b	
Corn			
Dec. .63¢ b	64¢/64¢	64¢/64¢	
May .64¢ b	65¢/65¢	65¢/65¢	
Oats			
Dec. .44¢ b	45¢/45¢	45¢/45¢	
May .44¢/14¢ b	44¢/45¢	44¢/45¢	
Cash wheat, corn and oats ranged:			
Yesterday. Saturday. Year Ago.			

Wheat

Dec. .74¢ a 74¢/6¢/7¢ 74¢/6¢/7¢

May .77¢ a 77¢/78¢ 77¢/78¢ b

Corn

Dec. .63¢ b 64¢/64¢ 64¢/64¢

May .64¢ b 65¢/65¢ 65¢/65¢

Oats

Dec. .44¢ b 45¢/45¢ 45¢/45¢

May .44¢/14¢ b 44¢/45¢ 44¢/45¢

Cash wheat, corn and oats ranged:

Yesterday. Saturday. Year Ago.

Wheat

No. 3 red... 78¢/75¢ 73¢/67¢ 62¢/69¢ b

No. 3 red... 75¢/70¢ 74¢/75¢ 70¢/71¢

No. 4 red... 74¢/75¢ 75¢/74¢ 62¢/69¢

No. 3 hard... 73¢/75¢ 73¢/74¢ 63¢/69¢

No. 2 hard... 73¢/75¢ 73¢/74¢ 67¢/69¢

Corn

No. 2 mixed... 64¢/65¢ 64¢/65¢ 38¢/39¢

No. 2 white... 64¢ 64¢ 37¢/38¢

No. 3 mixed... 64¢/65¢ 64¢/65¢ 35¢/36¢

No. 4 mixed... 64¢/65¢ 63¢/64¢ 35¢/36¢

No. 3 white... 64¢/65¢ 64¢/65¢ 37¢/38¢

No. 2 yellow... 64¢/65¢ 64¢/65¢ 35¢/36¢

No. 3 yellow... 64¢/65¢ 64¢/65¢ 35¢/36¢

Oats

No. 2 mixed... 45¢/46¢ 45¢/46¢ 23¢/24¢

No. 2 white... 47¢/47¢ 47¢/47¢

No. 3 white... 49¢/49¢ 49¢/49¢ 23¢/24¢

No. 4 white... 49¢/49¢ 49¢/49¢ 24¢/25¢

No. 2 mixed... 45¢/46¢ 44¢/44¢ 23¢/23¢

No. 4 mixed... 45¢/46¢ 43¢/44¢ 23¢/23¢

COTTON—Local spot quotations—Ordinary, 5¢/buc; good ordinary, 5¢/buc; low middling, 7¢/buc; middling, 7¢/buc; good middling, 7¢/buc; middling, 8¢/buc.

WOOL—Quiet. Current receipts are mainly of small, inferior lots, and these, being undesirable, do not bring the above quotations. Straight combing is still in demand and firm. Stocks held in store here are quite large. Lamb quotable from 3¢ to 15¢—fall about 1¢ per pound less.

Missouri and Illinois—Adm. combing, 17¢/17¢; medium clothing, 16¢/16¢; head and low, 16¢/16¢; slight burly, 16¢; head burly, 11¢/12¢; light fine, 14¢/15¢; heavy fine, 12¢/12¢; lamb, 15¢/16¢. Arkansas and South—Medium (deees), 17¢/16¢; medium (loose), 15¢/16¢; head burly, 16¢. Dakota and West—Medium, 16¢/16¢; fine line, 13¢/14¢; light fine, 13¢/14¢; heavy fine, 10¢/11¢. Texas, Indian and Oklahoma—Medium, 16¢/16¢; coarse and low, 13¢/14¢; heavy fine, 10¢/11¢. Iowa, Wisconsin and Minnesota—Medium, 16¢/16¢; fine medium, 14¢/14¢; light fine, 13¢/14¢; heavy fine, 11¢/12¢. Kansas and Nebraska—Medium, 15¢/16¢; fine medium, 14¢/15¢; light fine, 14¢/14¢; heavy fine, 11¢/12¢. Tub-washed—No. 1, 25¢; No. 2, 21¢/22¢; burly, 14¢/15¢.

HIDES—Prices unsettled, dealers striving to buy below quotations, but no change to note. Movement fair. Green saited beginning to run less desirable in quality—grubby, long-haired, etc. Dry—Texas, heavy, 15¢/buc; Texas, average, 14¢/buc; native and Southern, 14¢; No. 1 native, 14¢/buc; No. 2 native, 13¢/buc; salted, 12¢/buc; No. 1, 13¢; salted, No. 2, 12¢. Green, Western, 8¢/buc; Southern, 8¢; selected, No. 1, 8¢/buc; selected, No. 2, 7¢/buc. Part cured 8¢ per pound less; uncured 1¢ per pound less; culs, 4¢/buc; culs, dry stock, 8¢.

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RAGS, ETC.—Per 100 pounds: Country rag, 10¢/10¢; old rope—No. 1, 11¢/11¢; No. 2, 10¢/10¢; old rope—No. 1, 11¢/11¢; No. 2, 10¢/10¢.

SCRAP IRON AND METAL—Per 100 pounds: Wrought iron, 16¢; heavy cast, 4¢; malleable, 4¢; steel, 4¢; breakage, 4¢; stove, 30¢; burn, 20¢; light brass, 7¢; heavy brass, 11¢; copper, 12¢; zinc, 2¢/25¢; lead, 8¢/5¢; pewter, \$12.

SALT—East Side: Medium, 9¢; granulated, 8¢ per barrel. Worth 5¢ per barrel; more this side.

LINSEED OIL—Quotable per gallon at 5¢ for raw and 5¢ for boiled—per gallon less in car lots.

COTTON-SEED OIL—Summer yellow at 38¢; white, 38¢; winter yellow at 42¢ and white at 43¢.

CASTOR OIL—In lots of 200 gallons or over at 11¢/buc per pound for No. 1 and 10¢/buc for No. 3—smaller quantities 1¢ per pound more.

LIVE STOCK.

HORSES—The horse arrivals were pretty liberal as a whole, they including many consignments other than those intended for the immediate sale, and particularly a few loads for British cavalry uses. Auction offerings comprised about 17 head, a slightly smaller run than the corresponding day of the week previous, of which many ran principally to plain to medium kinds. A few good heavy horses were represented, which sold at \$100/105, and a few or two drivers which realized up to \$270, while otherwise the grade was ordinary, quite a few common offerings selling below \$60. The market was distinctly quiet and slow on common and inferior horses, and was not as good as a week ago on such kinds, owing to a decidedly lighter Southern demand. On the other hand the finished offerings in all classes sold comparatively well, although the Eastern dealers reported that their advices from home were anything but encouraging. Orders from the English Government for small "war" horses, 14¢ to 15¢, are still a part of the movement, and while not as satisfactory to the market in general as they have been at previous times, are very helpful at this stage when other demands are as small.

CHEESE—Jobbing: Twins at 11¢, singles 13¢/14¢; daisies, 11¢/12¢; Y. A., 11¢/12¢; long horns, 11¢/12¢; N. Y. large, 10¢/11¢; N. Y. small, 11¢/12¢; limburger at 12¢. Swiss—Choice at 15¢, No. 2 12¢/13¢; brick 11¢/12¢.

LIVE POULTRY—Young chickens, average 8¢; old roosters, 8¢; staggie young—8¢; old hens, 8¢; turkeys—average 10¢/11¢; old hens, 8¢.

BUTTER—Quiet on creamery; what sells brings quotations, but buyers take only enough stock for their most pressing needs. Fresh sweet country make, roll and packed, is scarce, in demand and firm. All held and inferior goods dull and nominal. Creamery—Extra, 25¢/25¢; firsts, 23¢/23¢; seconds, 20¢/20¢. Ladie-packed—Extra, 16¢; firsts, 15¢; grease to, Dairy—Extra, 15¢/16¢; No. 1, 15¢/16¢. Country—Choice packed, 16¢; poor to fair, 8¢/10¢; choice roll, 16¢; poor to fair, 10¢/12¢.

EGGS—Current receipts light and all more or less mixed with held and inferior at 22¢, less off. Demand quiet.

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CHEESE—Jobbing: Twins at 11¢, singles 13¢/14¢; daisies, 11¢/12¢; Y. A., 11¢/12¢; long horns, 11¢/12¢; N. Y. large, 10¢/11¢; N. Y. small, 11¢/12¢; limburger at 12¢. Swiss—Choice at 15¢, No. 2 12¢/13¢; brick 11¢/12¢.

LIVE POULTRY—Young chickens, average 8¢; old roosters, 8¢; staggie young—8¢; old hens, 8¢; turkeys—average 10¢/11¢; old hens, 8¢.

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